

Work Order ID 164639

Wednesday, July 26, 2017 2:40:18 PM

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SCRAPPED
*Sold Alone *164639* Ship Aug 23*

Item ID: D3391-025 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Aft Tube Assembly
 Start Date: 8/10/2017 Start Qty: 1.00 ***1*** Cust Item ID:
 Required Date: 8/22/2017 Req'd Qty: 1.00 ***1*** Customer:
 Reference:

Approvals: Process Plan: DAS Date: JUL 26 2017 Tooling: Date: Run Start ***NR1***
 QC: 21 Date: SPC (Y/N): Date: Stop ***NR2***
9-89

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
D3391	J

100

0.11

100

MORI SEIKI CNC LATHE LARGE

Mori Seiki

Memo

1.30

Mori Seiki CNC Lathe Large

Turn as per Folio FA599

Rev: AA & Dwg D3391 Rev: J

ensure steady rest is turning true

****REMOVE STEADY REST AND MACHINIG MARKS****

Ø 1 Pmp 31-07-2017

110

QC2- Inspect parts off machine FAI/FAIB

0.00

110

QC

Memo

0.02

Quality Control

Ø 1 PMP 31-07-2017

*P.T.V.
P.T.O*

DQA: MD Date: JAN 4 2018
 QA Closed: MD Date: JAN - 4 2018 **WORK ORDER NON-CONFORMANCE / UPDATE**



Work Order update only ☐

Work Order: <u>164639</u>	DISPOSITION Rework ☐ Scrap ☒ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS					
Part No. <u>DB391-Q25</u>		Skid-tube ☐	Cross tube ☒	Water Jet ☐	Engineering ☐		
NCR No. <u>17-6735</u>		Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐		
		Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐		
		Large Fab ☐	Composite ☐	Supplier ☐			

Date: <u>17-09-27</u>	Step #: <u>100</u>	QTY Effective: <u>1</u>	MRB (QSI042) Approval DAS 9 9:50 <u>17-09-27</u>
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Description Work Order Deviation	Disposition	Completed By <u>JTW</u> <u>17-09-27</u>
OPERATOR forgot END Aug. Steps Jaws Crushed tube	Scrap	Lead hand / Supervisor Approval Verification <u>JTW</u> <u>17-09-27</u>
		QC / QA Coordinator Approval DAS 9 9:50 <u>17-09-27</u>

Root Cause			FAULT CATEGORY		
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐
Internal Transport ☐	Poor Information ☐	☒ Crushing	Countersink ☐	Off-set ☐	Drawing ☐
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐
LOA ☒	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐
Past Expiry Date ☐	Manufacturing Process ☐				
Misidentified ☐	Past Due ☐	OTHER :			

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QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
112 *112* QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.02				_____	_____	_____	_____
120 *120* HAAS 1 HAAS CNC vertical machine #1	HAAS CNC VERTICAL MACHINING #1 Memo 1-Machine as per Folio FA 599 Rev: _____ & Dwg D3391 Rev: _____ 2-Deburr	0.32 1.74				_____	_____	_____	_____
130 *130* QC Quality Control	QC2- Inspect parts off machine FAI/FAIB Memo	0.00 0.01				_____	_____	_____	_____

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Form as per Dwg D3391 Using Bend Prog 3391025

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Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
170	QC5- Inspect part completeness to step on W/O	0.00							
170									
QC	Memo	0.02							
Quality Control									

 44 7/27/27

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Item ID: D3391-025

Accept

N900040100

Setup Start *NS1*

Revision ID:

Item Name: Aft Tube Assembly

Stop *NS2*

Start Date: 8/10/2017 **Start Qty:** 1.00

1

Cust Item ID:

Required Date: 8/22/2017 Req'd Qty: 1.00

*** 1 ***

Customer:

Reference:

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Sequence ID/
Work Center ID

Operation Description

Set Up/ Run Hours

Tool ID

Tool #

**Plan
Code**

**Accept
Qty**

Reject
QtyReject
Number

**Insp.
Stamp**

180

0.00

180

Skidtubes

1.15

Skidtubes

Skidtubes

Memo

1-Open Aft cap pilot hole to .208" as per Dwg D3391

2-Drill float bag holes using DT8809 as per Dwg D3391(Holes marked "A" Only.

3-Drill wearplate holes as per Dwg D3391 using DT8878(Mid Tube) & DT8217 Wearplate Jig .

*****Do Not Open To Finished Size*****

4-Drill Wearshoe holes as per DWG D3391 using DT8939 locating from 2 previously drilled aft wearplate holes.

5- Use DT10247 and drill holes for nutplates and c'sink.

6- Detail DD, open (5) forward wearplate holes 0.375".

7-Open wearplate holes to 0.297" and c'bore as per dwg D3391.

8-Open up all float bag holes to 0.328" and c'sink as per Dwg D3391.

9-Deburr

9- Scribe batch # on fwd end

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Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
190 *190* QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.02				_____	_____	_____	_____
200 *200* HandFinish Hand Finishing	Chemical Conversion Coat per QSI005 4.1 Memo	0.00 0.84				_____	_____	_____	_____
210 *210* QC Quality Control	QC7-Inspect Chemical Conversion Coat Memo	0.00 0.02				_____	_____	_____	_____

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Required Date: 8/22/2017 Req'd Qty: 1.00 ***1*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
235 *235* HandFinish Hand Finishing	Pressure Wash per QSI005 4.3 Memo AND REALODINE AS PER PAR09-043	0.00 0.34				_____	_____	_____	_____
240 *240* SprayPaint Spray Painting	PRIME AS PER DWG AND QSI005 4.2.1.3.3 PRIMER BATCH: _____ PAINT AS PER DWG AND QSI005 4.2.2.4 PAINT: _____	0.00 0.00				_____	_____	_____	_____
250 *250* QC Quality Control	QC14- Inspect Spray Paint Memo	0.00 0.02				_____	_____	_____	_____

Packaging

Quality Control

Picklist Print

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Work Order ID: 164639

164639

Parent Item: D3391-025

D3391-025

Parent Item Name: Aft Tube Assembly

Start Date: 8/10/2017

Required Date: 8/22/2017

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev B 06-02-07 ECN773 dwg rev. D EC
IPP Rev:C 06-03-28 Update Manuf. Instructions JLM
IPP rev D 07.03.20 revF dwg EC
IPP rev E 07.11.07 rev G dwg ecn 1053p EC verified by: DD
IPP Rev:F 07-11-13 ECN 1056 DD verified by: EC
IPP Rev:G 08-09-10 revH as per dwg DD verified by:EC IPP Rev:H
11.11.14 AS PER REV.I DD verified by:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D4095-047		Manufactured	No			260	Each	15.0000	1	1			

D4095-047

Wearpad Aft

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP001	15	
154327	5	
162009	10	

D4095-049

Manufactured No

260

Each

18.0000

1

1

D4095-049

Wearpad Aft

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP001	18	
150415	2	
158172	4	
161988	12	

Picklist Print

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Work Order ID: 164639

164639

Parent Item: D3391-025

D3391-025

Parent Item Name: Aft Tube Assembly

Start Date: 8/10/2017

Required Date: 8/22/2017

Start Qty: 1.00

Required Qty: 1.00

MS20601-AD4W3

Purchased

No

260

Each

409.0000

12

12

MS20601-AD4W3

Rivet

Location

Loc Qty

Loc Code

CCK004

100

m137963

100

LG001

199

m137459

3

m137820

196

ST308

110

m137587

110

MS20601-AD4W7

Purchased

No

260

Each

450.0000

8

8

MS20601-AD4W7

RIVET

Location

Loc Qty

Loc Code

LG001

450

m135839

6

m137148

444

MS21075L5

Purchased

No

260

Each

939.0000

10

10

MS21075L5

Nut Plate

Location

Loc Qty

Loc Code

GA

939

m137405

7

m137951

482

m138041

200

m138042

250

Picklist Print

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Work Order ID: 164639

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Parent Item: D3391-025

D3391-025

Parent Item Name: Aft Tube Assembly

Start Date: 8/10/2017

Required Date: 8/22/2017

Start Qty: 1.00

Required Qty: 1.00

D6014-090

Manufactured No

100

Each

19.0000

1

1

D6014-090

Aluminum Extrusion

**

Location

Loc Qty

Loc Code

LG003

19

139426

19

D3670-4-200

Manufactured No

230

Each

93.0000

4

4

D3670-4-200

Bushing

**

1 31-07-2017 PMP

Location

Loc Qty

Loc Code

FG

10

87709

10

LG001

83

138819

3

158395

32

159315

48

D2646

Manufactured No

270

Each

10.0000

1

1

D2646

Aft Cap

**

Location

Loc Qty

Loc Code

FG

2

90495

2

FP001

8

136885

3

149748

1

159719

4

Picklist Print

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Work Order ID: 164639

164639

Parent Item: D3391-025

D3391-025

Parent Item Name: Aft Tube Assembly

Start Date: 8/10/2017

Required Date: 8/22/2017

Start Qty: 1.00

Required Qty: 1.00

D3672-1

Manufactured No

270

Each

850.0000

2

2

D3672-1

Washer, Phenolic

Location

Loc Qty

Loc Code

FG

10

85222

10

FP001

340

150074

340

ST047

500

163255

500

ALS4-1032-130

AELS4-1032-130

Purchased

No

260

Each

5,778.000

8

8

ALS4-1032-130

Rivnut

Location

Loc Qty

Loc Code

FG

100

FG

M135442

50

M136579

50

FP001

5617

M133077

3

M136579

614

M137820

5000

st555

61

M136579

61

Picklist Print

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Work Order ID: 164639

164639

Parent Item: D3391-025

D3391-025

Parent Item Name: Aft Tube Assembly

Start Date: 8/10/2017

Required Date: 8/22/2017

Start Qty: 1.00

Required Qty: 1.00

ALS4-1032-225

AELS8-1032-225

Purchased

No

270

Each

2,380.000

4

4

ALS4-1032-225

Rivnut

Location

Loc Qty

Loc Code

FG

55

M134975

20

M135998

5

M136579

30

FP001

2014

M135603

40

M135920

38

M135998

1925

M136265

11

ST556

311

M136579

311

Picklist Print

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Work Order ID: 164639

164639

Parent Item: D3391-025

D3391-025

Parent Item Name: Aft Tube Assembly

Start Date: 8/10/2017

Required Date: 8/22/2017

Start Qty: 1.00

Required Qty: 1.00

AN3C4A

Purchased

No

270

Each

1,141.000

6

6

AN3C4A

Bolt

Location

Loc Qty

Loc Code

FG

20

122814

20

FP001

183

M136450

23

M136740

8

M136986

20

M137075

43

M137164

2

M137361

5

M137820

82

OVER002

925

M137507

150

M137587

250

M137963

400

M138040

125

ST350

13

M135704

13

Picklist Print

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D3391-025

Parent Item Name: Aft Tube Assembly

Start Date: 8/10/2017

Required Date: 8/22/2017

Start Qty: 1.00

Required Qty: 1.00

AN3C5A

Purchased

No

270

Each

1,314.000

4

4

AN3C5A

Bolt

Location

Loc Qty

Loc Code

FG

5

122800

5

FP001

443

M137361

443

OVER002

800

M137710

200

M137963

600

ST350

66

M135442

66

NAS1149C0332R

Purchased

No

270

Each

3,974.000

10

10

NAS1149C0332R

WASHER

Location

Loc Qty

Loc Code

FP001

918

m137951

918

GA

502

m133284

22

m136444

480

ST260a

1946

m137851

1946

ST266

608

m137381

608

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Shop Packet Print

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DART AEROSPACE LTD		Work Order: 164635
Description: Float Skidtube (412)		Part Number: D3391-3
Inspection Dwg: D3391	Rev: J	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Lathe Section						
14.000	+/-0.010	14.000	✓		TAPE	
3.500	+/-0.010	3.499	✓		VERN 08	
Ø3.200	+/-0.010					
Ø3.750	+/-0.010	3.749	✓		VERN 08	
30° x 0.060 chamfer	+/-0.010					
88.93	+/-0.030					

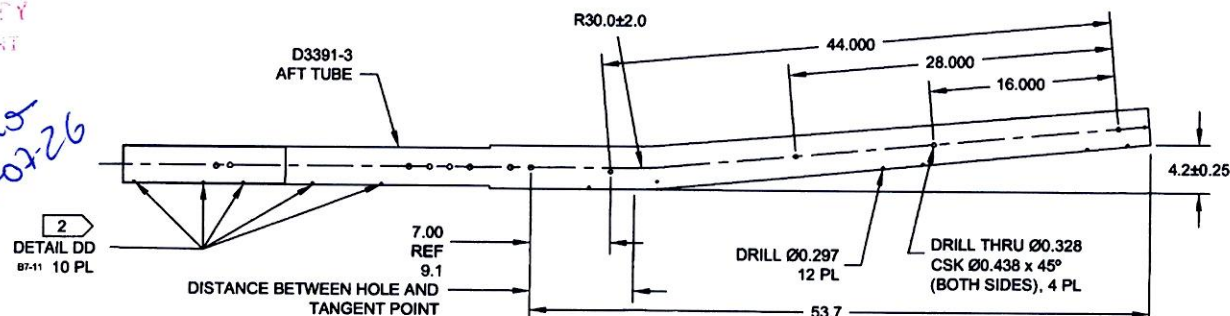
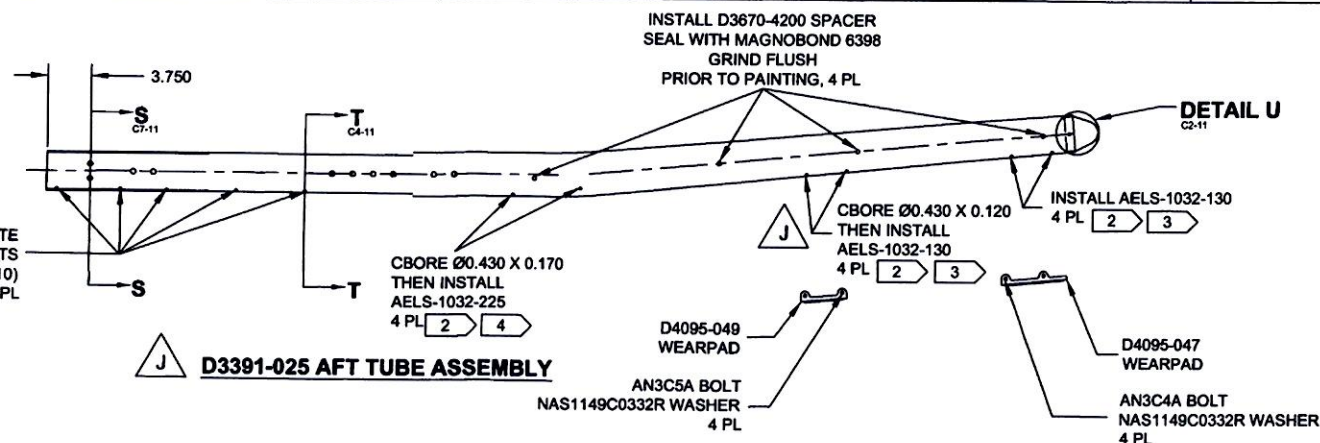
Measured by:	Date:
Audited by:	Date:

HAAS Section						
1.526	+0.000/-0.030					
7.500	+/-0.010					
27.750	+/-0.010					
31.750	+/-0.010					
35.250	+/-0.010					
3.300	+/-0.010					
0.200	+/-0.010					
3.520	+/-0.010					
0.687	+0.010/-0.000					
R0.062	+/-0.010					
Ø0.484	+0.005/-0.001					

Measured by:	Date:
Audited by:	Date:

Rev	Date	Change	Revised by	Approved
A	06.04.24	New Issue P/O D3391-015/-025	KJ/JLM	
B	06.06.19	Dwg revision update	KJ/JLM	
C	07.04.20	Ø0.208 dimension removed	KJ/JLM	
D	07.09.06	0.400 dimension removed	KJ/JLM	
E	07.11.23	Dwg Rev. updated	KJ/EC/DD	
F	09.04.27	Dimensions updated per Rev H and NCR09-028	KJ/JLM	
G	09.11.16	Dimension 0.200 removed	KJ	
H	11.06.21	Dimension 44.995 removed	KJ	
I	12.05.15	Dwg Rev updated	KJ	
J	12.05.23	Dimension updated	KJ	
K	12.10.15	88.93 dimension removed	KJ	
L	12.11.28	88.93 dimension added	KJ	
M	16.06.23	Dimensions updated per Rev J	KJ	

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WITHOUT NOTICE
WORK ORDER NO. 1646391 M5
130726



D3391-025 AFT TUBE ASSEMBLY PARTS LIST

QTY	PART NUMBER	DESCRIPTION
X	D3391-025	AFT TUBE ASSEMBLY
1	D2646	AFT CAP
1	D3391-3	AFT TUBE
4	D3670-4200	SPACER
2	D3672-1	WASHER
1	D4095-049	WEARPAD
1	D4095-047	WEARPAD
6	AELS-1032-130	INSERT
4	AELS-1032-225	INSERT
6	AN3C4A	BOLT
4	AN3C5A	BOLT
20	MS20601AD4	RIVET, BLIND
10	MS21075L5	NUT PLATE FLOATING
10	NAS1149C0332R	WASHER

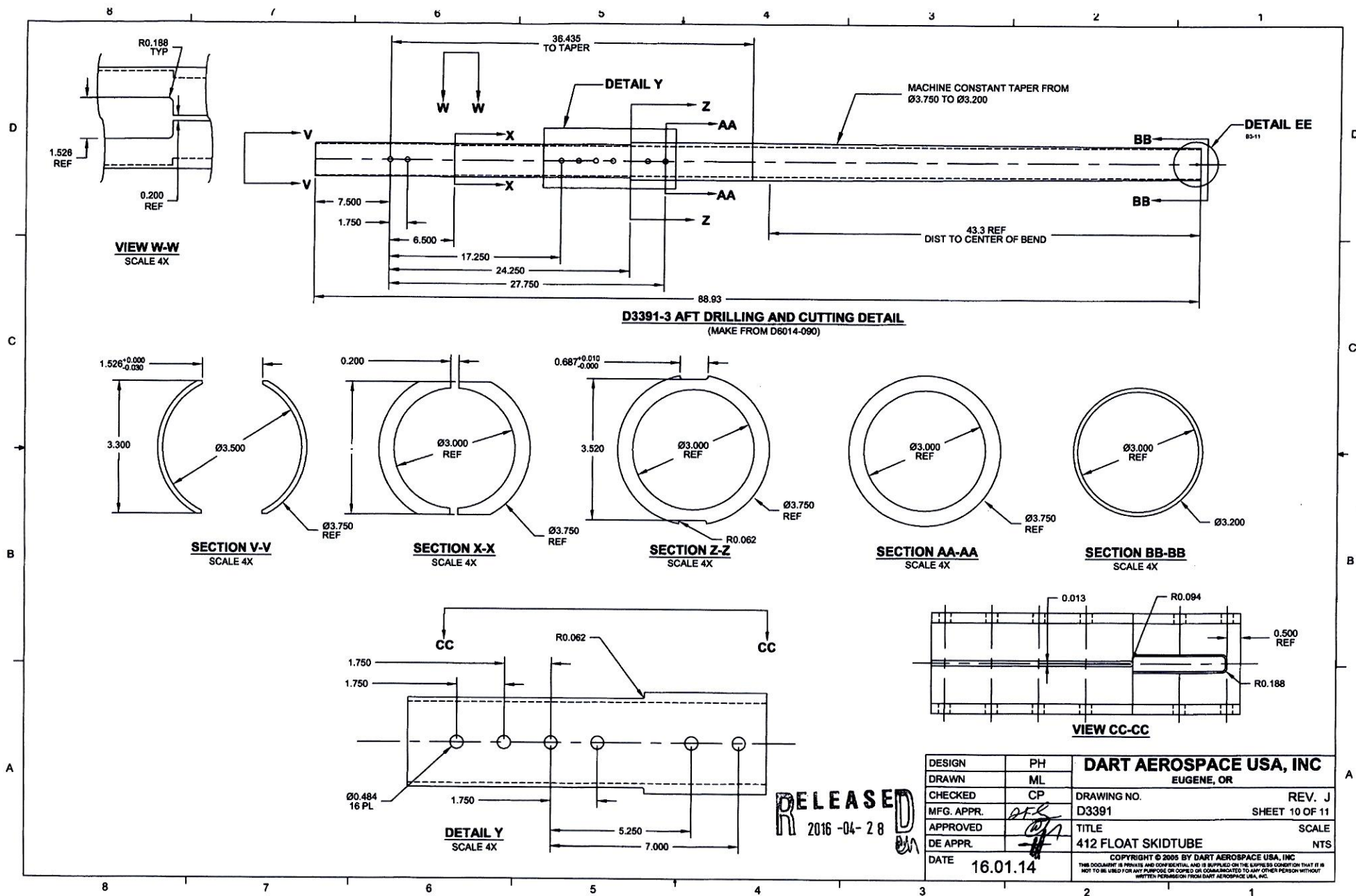
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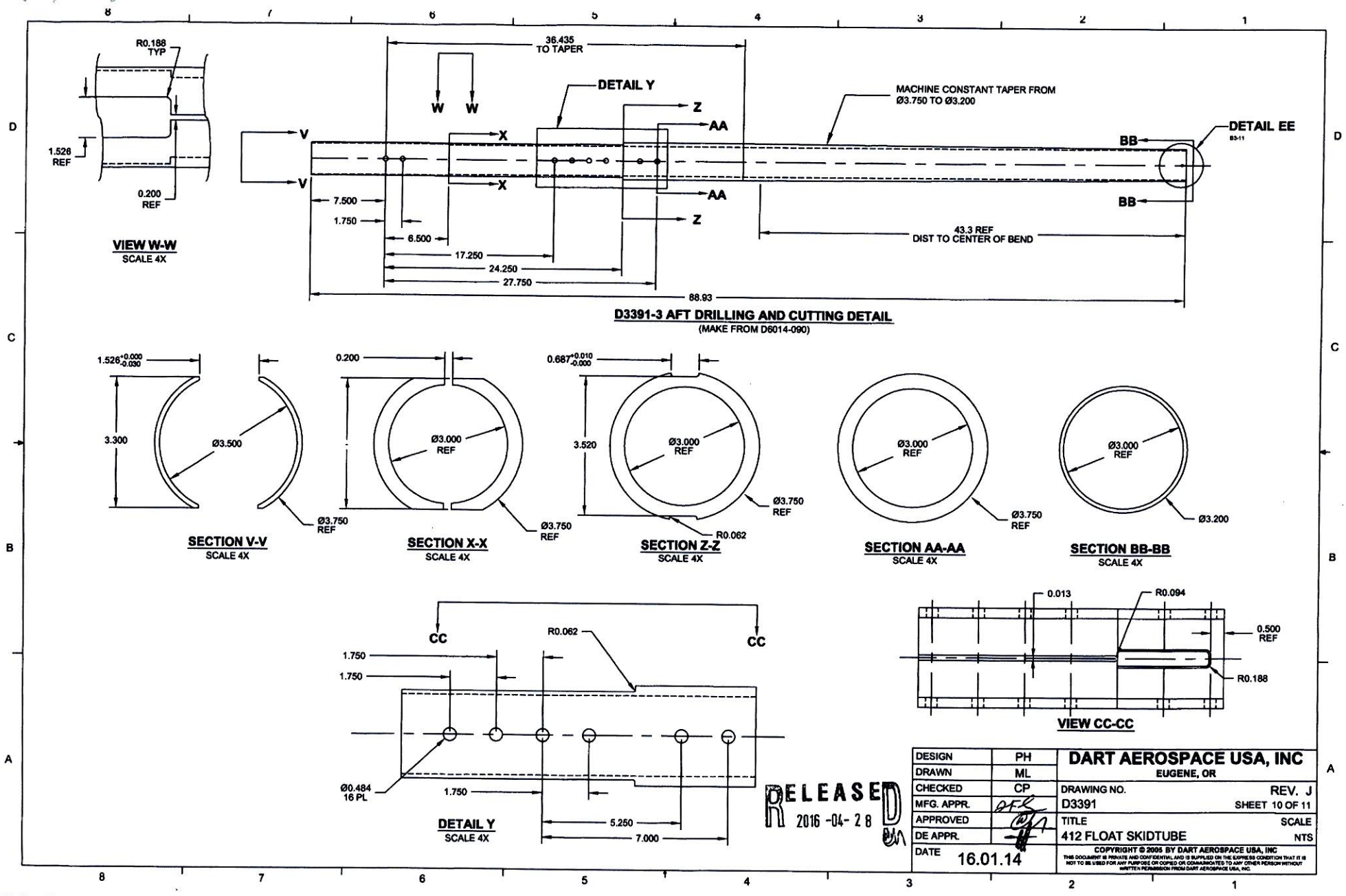
- 1) COAT ALL EXPOSED FASTENERS WITH LPS "LPS PROCYON"
- 2) USE DART DRILL TEMPLATE DT8217 TO LOCATE AND DRILL Ø0.297 AND Ø0.375 HOLES FOR WEARSHOE INSERTS AND NUTPLATES. CBORE AS NOTED AND INSTALL INSERT/NUTPLATES EXCEPT WHERE INDICATED. USE NUT PLATE DRILL JIG IF REQUIRED.
- 3) ENSURE WALL THICKNESS IS BETWEEN 0.070 AND 0.130 BEFORE INSTALLING INSERT
- 4) ENSURE WALL THICKNESS IS BETWEEN 0.130 AND 0.225 BEFORE INSTALLING INSERT

BENDING AND DRILLING DETAIL

RELEASED
2016-04-28

DESIGN	PH	DART AEROSPACE USA, INC	
DRAWN	ML	EUGENE, OR	
CHECKED	CP	DRAWING NO.	REV. J
MFG. APPR.		D3391	SHEET 9 OF 11
APPROVED		TITLE	SCALE
DE APPR.		AFT TUBE ASSEMBLY	NTS
DATE	16.01.14	COPYRIGHT © 2008 BY DART AEROSPACE USA, INC	
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DESIGN	PH	DART AEROSPACE USA, INC	
DRAWN	ML	EUGENE, OR	
CHECKED	CP	DRAWING NO.	REV. J
MFG. APPR.	<i>[Signature]</i>	D3391	SHEET 10 OF 11
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.		412 FLOAT SKIDTUBE	NTS
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